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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,108	08/06/2007	Gretchen Terri Lapidus Lavine	21879-00063-US1	2899

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EXAMINER	
MCGUTHRY BANKS, TIMA MICHELE	

ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
01/05/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,108	LAVINE ET AL.	
	Examiner	Art Unit	
	TIMA M. MCGUTHRY-BANKS	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-4 are as originally presented.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Mexico on 7/30/2004. It is noted, however, that applicant has not filed a certified copy of the Mexican application as required by 35 U.S.C. 119(b). Applicant has however fulfilled the requirements for priority under 35 U.S.C. 371, which include the priority documents filed on 2/3/2006, but has not claimed that priority. Applicant is eligible for priority under 35 U.S.C. 120 for PA/A/2003/006955 filed 8/4/2003. At this time, no priority is granted.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claim 3 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

The claims in this application do not commence on a separate sheet or electronic page in accordance with 37 CFR 1.52(b)(3). Appropriate correction is required in response to this action.

Examiner's Comment

For purposes of examination, the examiner interprets Claims 1 and 2 as product claims and Claim 4 as a process claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "that once concluded the leaching time" in Claim 4 is unclear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.

Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(d) as being barred by applicant's patents EP 1666613 published on June 7, 2006, NO 200601067 published April 26, 2006, MX 2003006955 published February 1, 2005, and WO 2005028687 published March 31, 2005. Applicant can overcome this rejection with the proper priority claims.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by the publication by Urbanski et al.

Urbanski et al anticipates the claimed invention. Urbanski et al teaches gold electrowinning from aqueous-alcoholic thiourea solutions comprising partially oxidizing the thiourea to formamidine disulfide *in situ* (page 138, lines 3-36).

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Urbanski et al.

Urbanski et al anticipates the claimed invention. Urbanski et al teaches gold electrowinning from aqueous-alcoholic thiourea solutions comprising partially oxidizing the thiourea *in situ*. The oxidation is carried out in the anode compartment, and formamidine disulfide is a good oxidant for gold (page 138, lines 3-36). The electrodeposition process is enhanced when the anode and cathode compartments are separated by means of a membrane

(page 151, lines 10-14), as long as the solution is well mixed in each compartment. The thiourea resulting from the reduction is recirculated to the anode compartment (page 138, lines 35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Urbanski et al as applied to claim 1 above, and further in view of GB 2,349,876.

Urbanski et al teaches that the consumption of thiourea depends on several competitive processes and needs to be determined experimentally under specific process conditions (paragraph bridging pates 138 and 139). However, Urbanski et al does not teach 10-30% of the thiourea reacts to produce formamidine disulfide as claimed.

GB '876 teaches that noble metals e.g., gold and silver, are recovered from ores by lixiviating with an acid solution of thiourea in presence of an oxidizing agent and a reducing agent. The concentrations of thiourea and formamidine disulphide in the solution are determined by analysis, e.g. by liquid chromatography. The ratio of thiourea to formamidine is 2:1 to 5:1 (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made that the ratio of thiourea to formamidine in Urbanski et al would be within the range taught by GB '876, since GB '876 teaches that these conditions lead to high extraction for gold can be achieved in relatively short reaction times while at the same time the irreversible degradation of thiourea may be suppressed. Not only may the loss by chemical degradation of thiourea be significantly reduced by avoiding sulfur precipitation the passivation of noble metal particles by the coating of reaction surfaces with sulfur is avoided (page 3, line 32 to page 4, line 1).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Regarding the subject matter in Claim 3, the kinetics of gold electrowinning are

studied on various cathodes, including Pt, stainless steel and graphite (page 146, lines 19-24 and Table 2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMA M. MCGUTHRY-BANKS whose telephone number is (571)272-2744. The examiner can normally be reached on M-F 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit 1793

/T. M. M./
Examiner, Art Unit 1793
5 January 2009